

## 2. The Evidence Adduced to Support the Evolutionist Interpretation

"The final category of geographical evidence, and the one which had the greatest effect upon the thinking of Darwin, is that of oceanic islands and their living inhabitants. Darwin observed that such islands are typically poor in numbers of species present, although the success of animals and plants introduced by man has proven that these islands are well-adapted to support a much greater variety of organisms than existed upon them aboriginally. He reasoned that, if all organisms had been created in their present localities, there is no reason why oceanic islands (islands, that is, which are located beyond the continental shelf) should not be as richly inhabited as comparable areas of the continents. Yet this is readily understandable upon his theory of migration from a common place of origin for all members of any group, with subsequent modification. For relatively few species could cross the great water barrier separating oceanic islands from the continental centers of origin.

"Of the few species found on oceanic islands, a large number are endemic, that is, found nowhere else. Darwin found twenty-six species of land birds in the Galapagos islands. Of these, twenty-one and possibly twenty-three are endemic. But of the eleven species of marine birds, only two are endemic. This is again just what one would expect in accordance with Darwin's theory. For, the occasional immigrants from the distant mainland (South America) would, upon arrival in their new environment, compete with quite different species from their cousins on the mainland, and so would be modified, eventually reaching the status of new and distinct species. But the great water barrier would greatly reduce the probability of these new species spreading to other localities. Yet for the marine birds the barrier ought to be less formidable, and hence the smaller proportion of endemics is not surprising. Lest thirty-seven species of birds for a small group of islands sound like a large number, the number of species on a restricted continental area may be given for comparison. The 1944 checklist of birds on the campus of the University of California at Berkeley lists 105 regular residents or seasonal migrants and forty species which have been recorded as occasional visitors.

"The Amphibia and terrestrial mammals, though not the bats, are usually entirely absent from oceanic islands. When they have been introduced by man, they frequently have multiplied so greatly as to become a nuisance. The west coast toad, *Bufo marinus* for example, was introduced into Hawaii in the hope that it would aid in the control of insects; but the toads themselves have now become a nuisance in the islands. Yet these groups are unable to cross large water barriers (or salt water barriers in the case of the Amphibia, which are quickly killed by salt water). But a barrier across which a mouse, for example, could not swim, might be easily flown by a bat. Had all species been created in the places where they now exist, then Amphibia and terrestrial mammals should be as frequent on oceanic islands as on comparable continental areas. Certainly terrestrial mammals should have been created on these islands as frequently as were bats. But bats are the very mammals which should reach the islands most readily if all mammals arose first on the continental land masses and then subsequently invaded such territories as they could.